

Clarksburg Ad Hoc Water Quality Working Group



Montgomery County

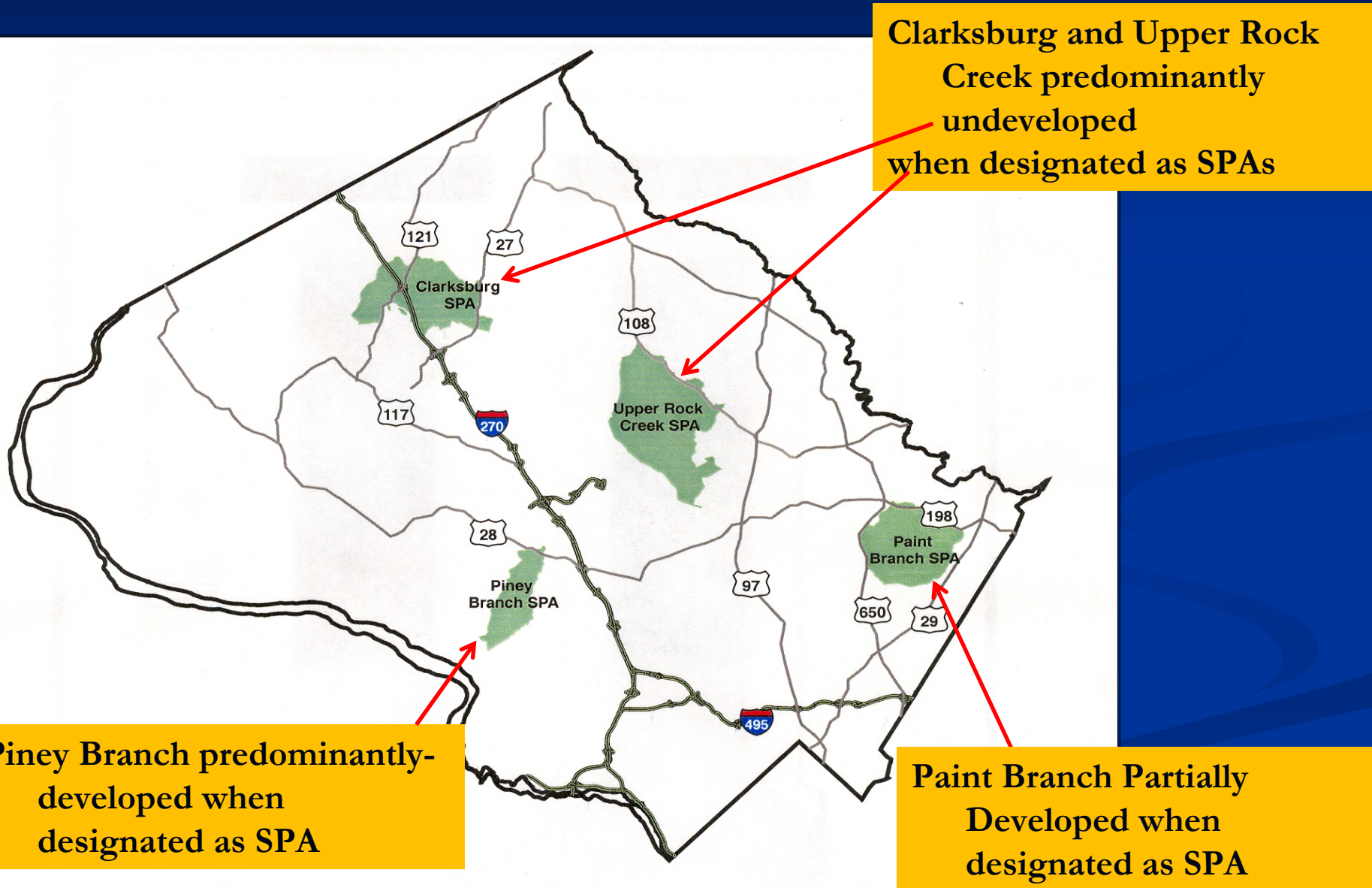
Department of Environmental Protection

January 22, 2010

Notes From The Field



Four SPA Areas

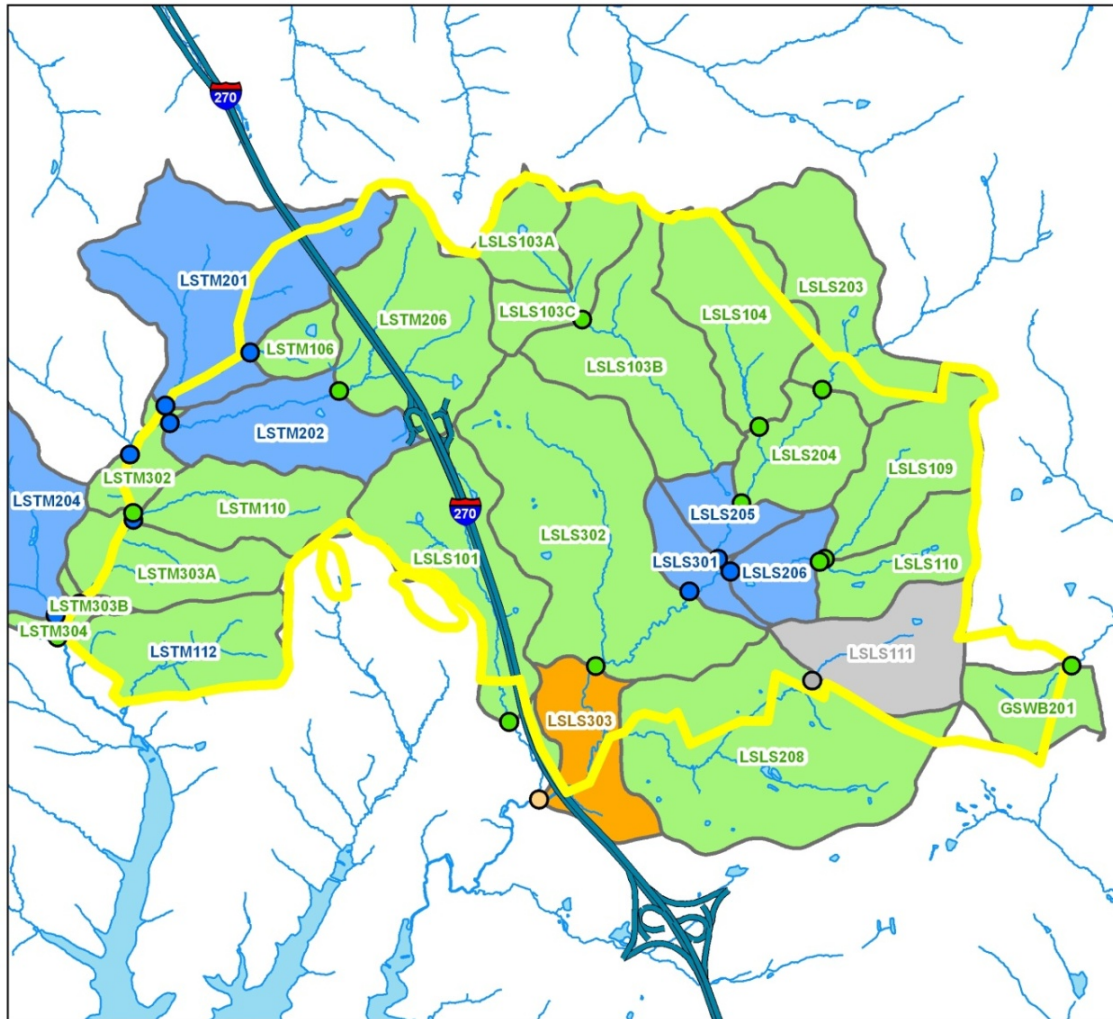


SPA REPORTS

- 9 Annual Reports issued
 - www.montgomerycountymd.gov/DEP
- Report on:
 - Stream quality (biological health assessment)
 - BMP effectiveness
 - Effects of construction and development on streams
- Reports contain findings and recommendations

Clarksburg Stream Conditions: 1994-1998

Clarksburg SPA - Average Stream Conditions 1994-1998 (Pre-Development)



Stream Condition IBI Categories

- Excellent
- Good
- Fair
- Not Monitored until 1999
- Streams
- Clarksburg SPA Boundary



0 0.2 0.4 0.8 1.2 1.6 Kilometers

0 0.15 0.3 0.6 0.9 1.2 Miles

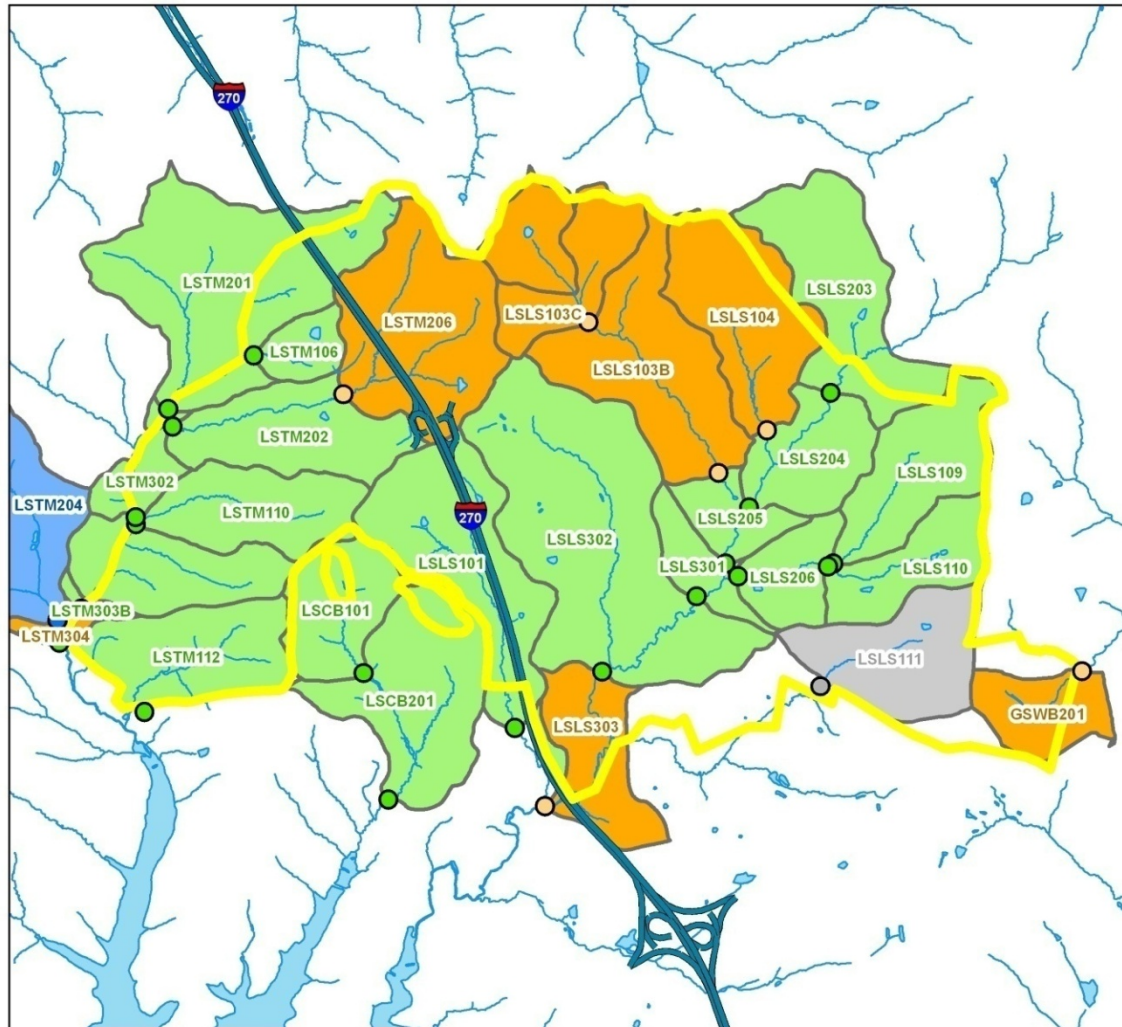


Location



Clarksburg Stream Conditions: 2006-2007

Clarksburg SPA - Average Stream Conditions 2006-2007 (Current)



Stream Condition IBI Categories

- Excellent
- Good
- Fair
- Not Monitored since 2000
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0 0.2 0.4 0.8 1.2 1.6 Kilometers

0 0.15 0.3 0.6 0.9 1.2 Miles

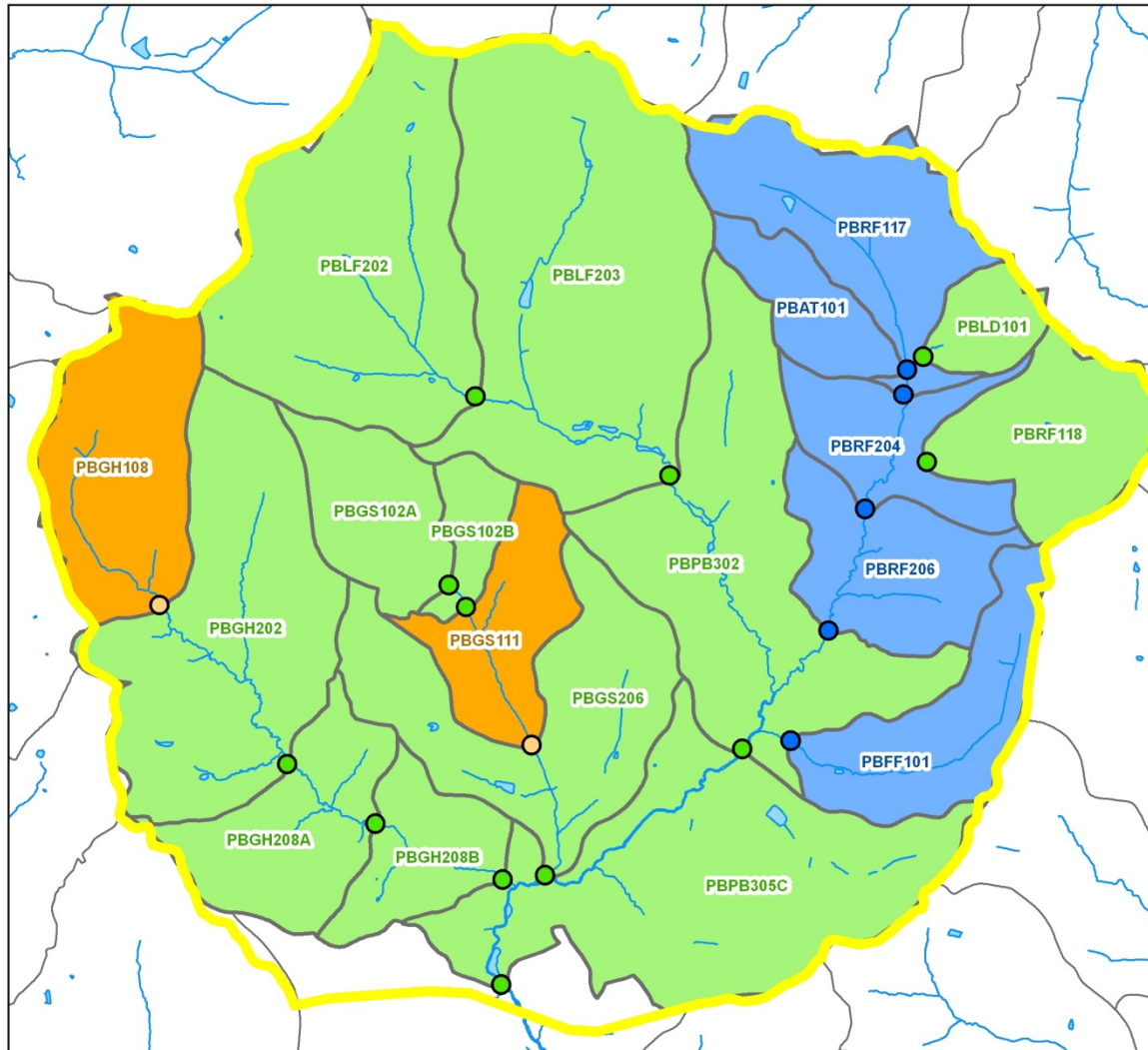


Location



Paint Branch Stream Conditions: 1994-1998

Paint Branch SPA - Average Stream Conditions 1994-1998 (Pre-Development)



Stream Condition IBI Categories

- Excellent
- Good
- Fair
- Streams
- Paint Branch SPA Boundary



0 0.125 0.25 0.5 0.75 1 Kilometers

0 0.1 0.2 0.4 0.6 0.8 Miles

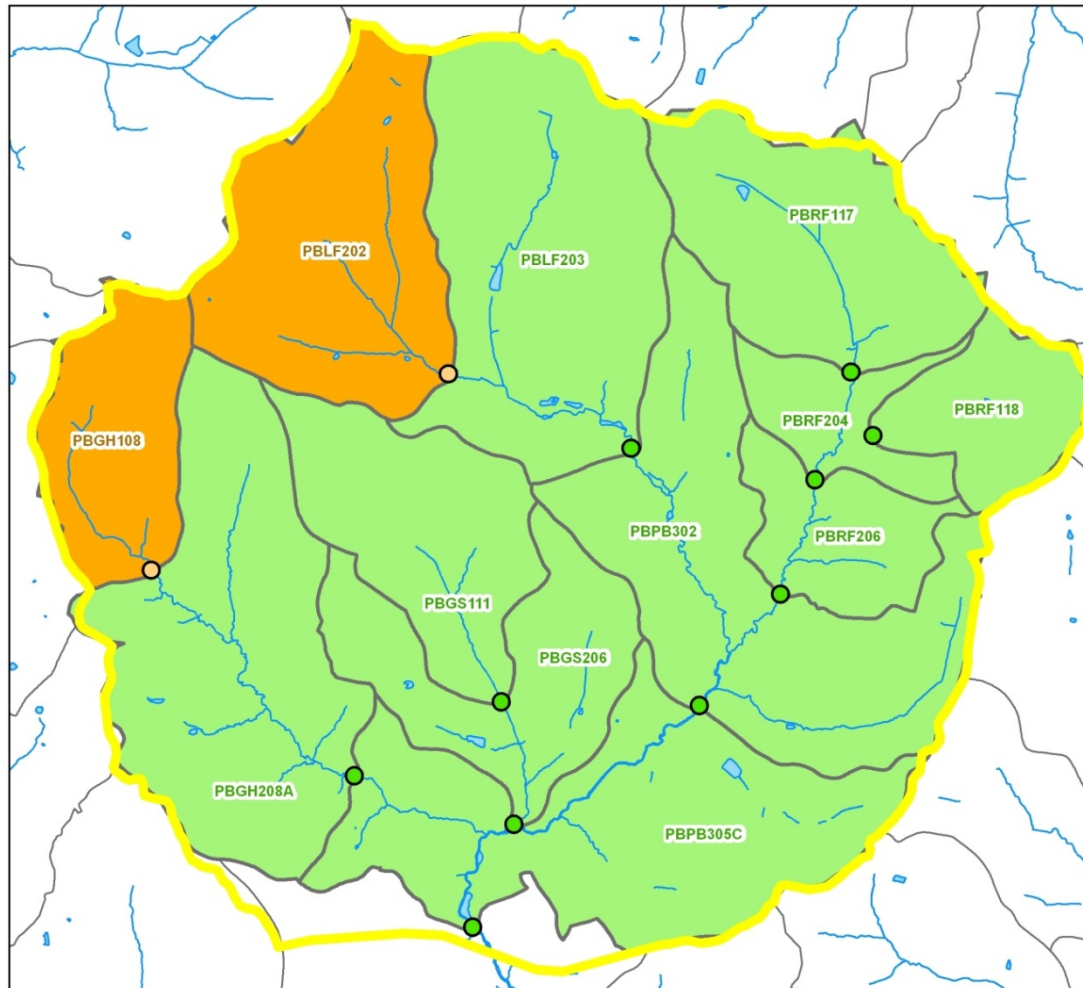


Location



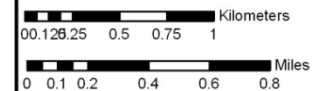
Paint Branch Stream Conditions: 2006-2007

Paint Branch SPA - Average Stream Conditions 2006-2007 (Current)



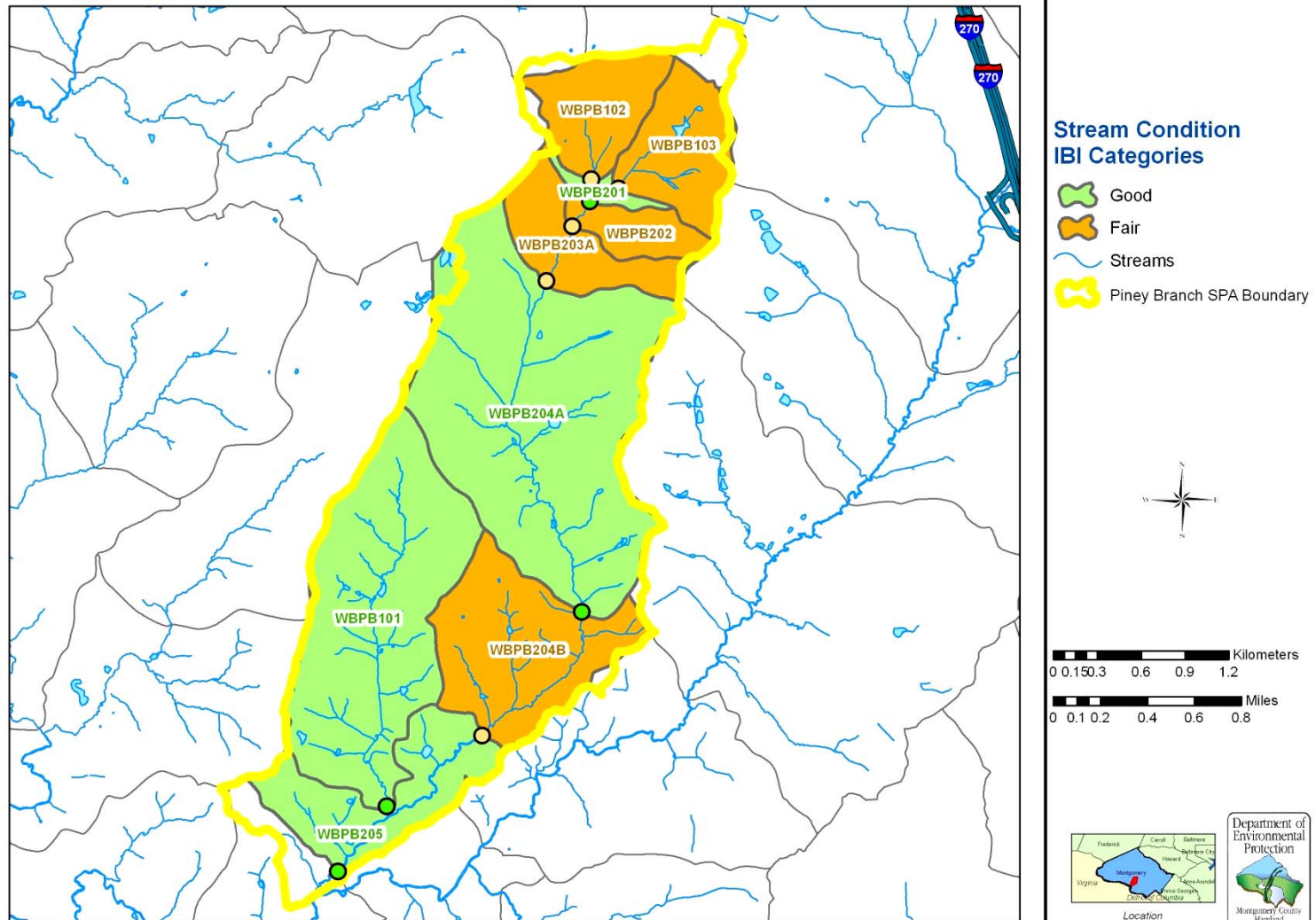
Stream Condition IBI Categories

- Good
- Fair
- Streams
- Paint Branch SPA Boundary



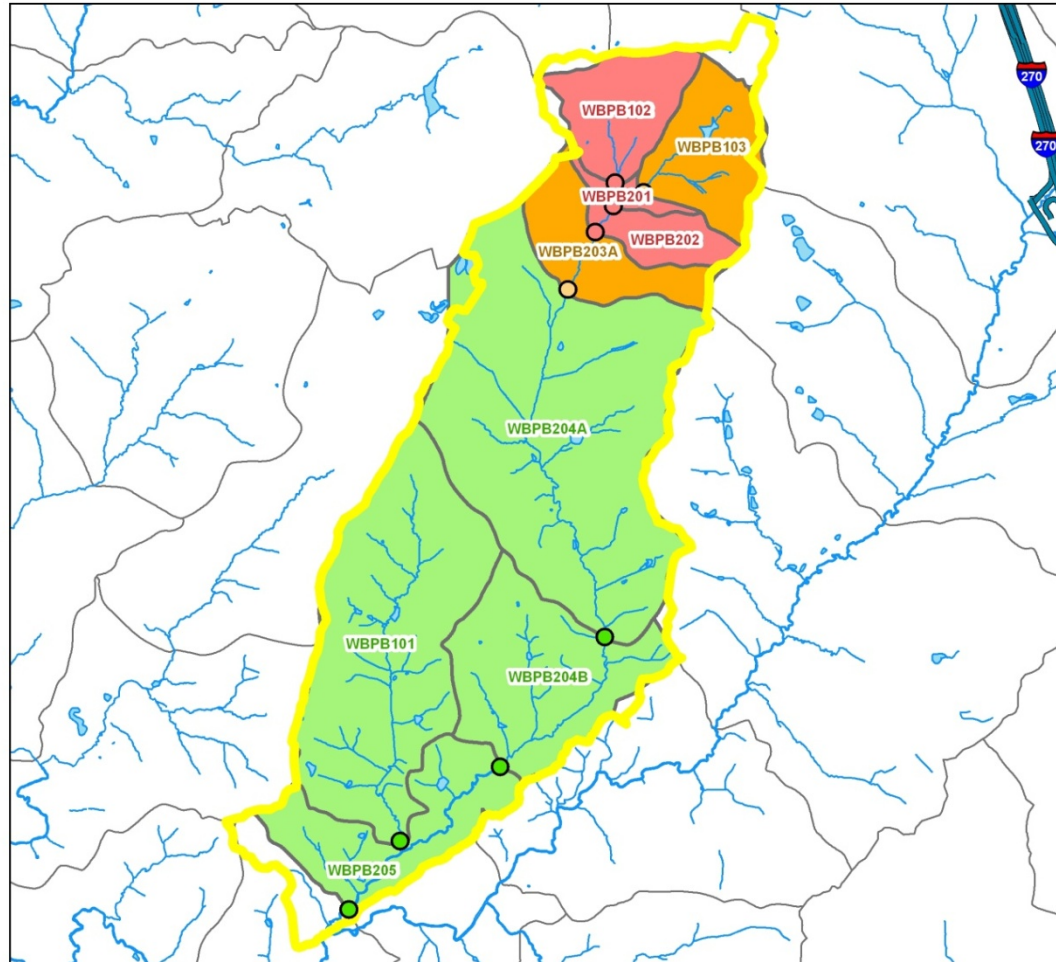
Piney Branch Stream Conditions: 1995-1997

Piney Branch SPA - Average Stream Conditions 1995-1997 (Pre-Development)



Piney Branch Stream Conditions: 2006-2007

Piney Branch SPA - Average Stream Conditions 2006-2007 (Current)



Stream Condition IBI Categories

- Good
- Fair
- Poor
- Streams
- Piney Branch SPA Boundary



0 0.150.3 0.6 0.9 1.2 Kilometers

0 0.1 0.2 0.4 0.6 0.8 Miles



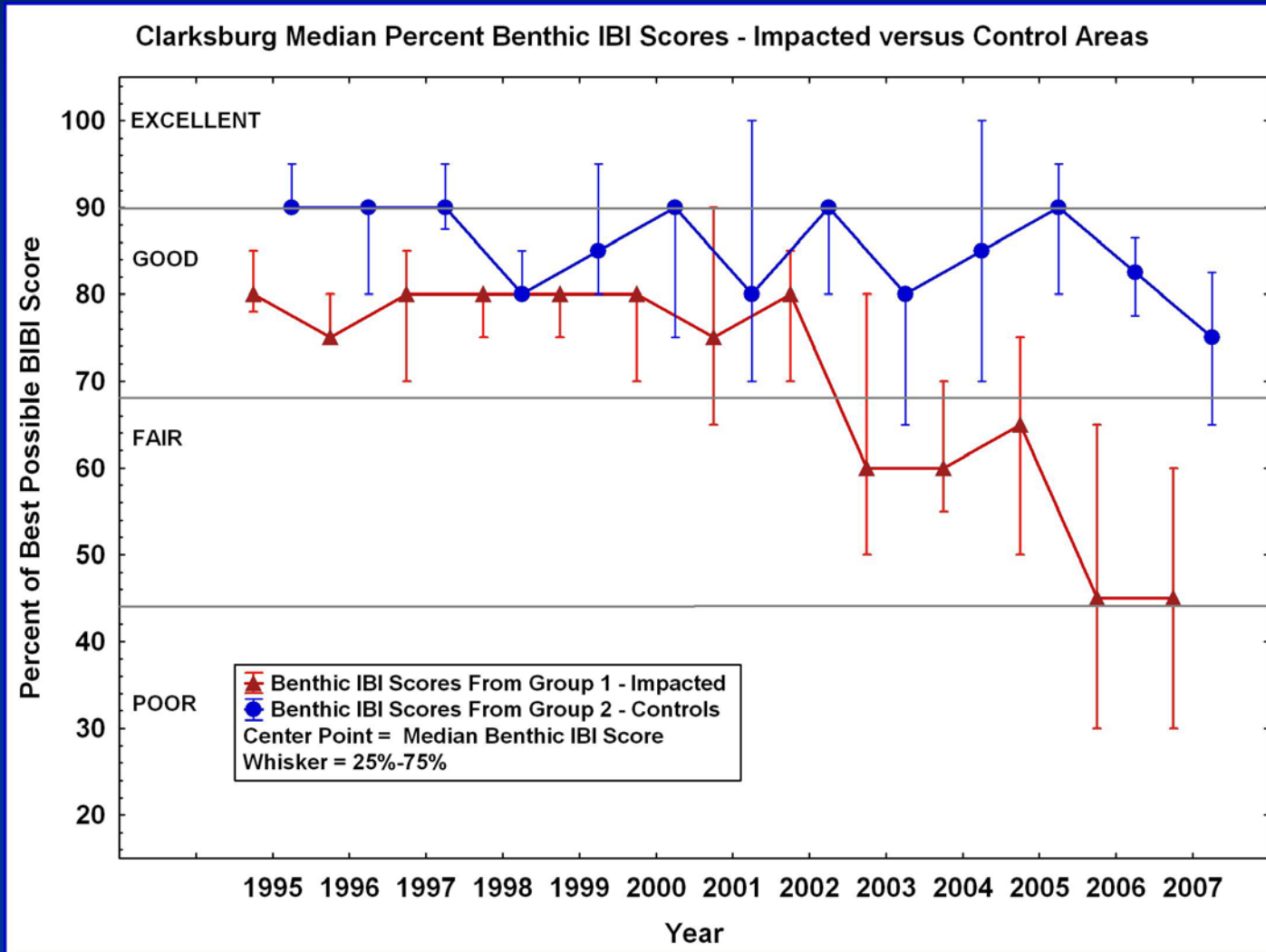
Location



Streams Conditions 101

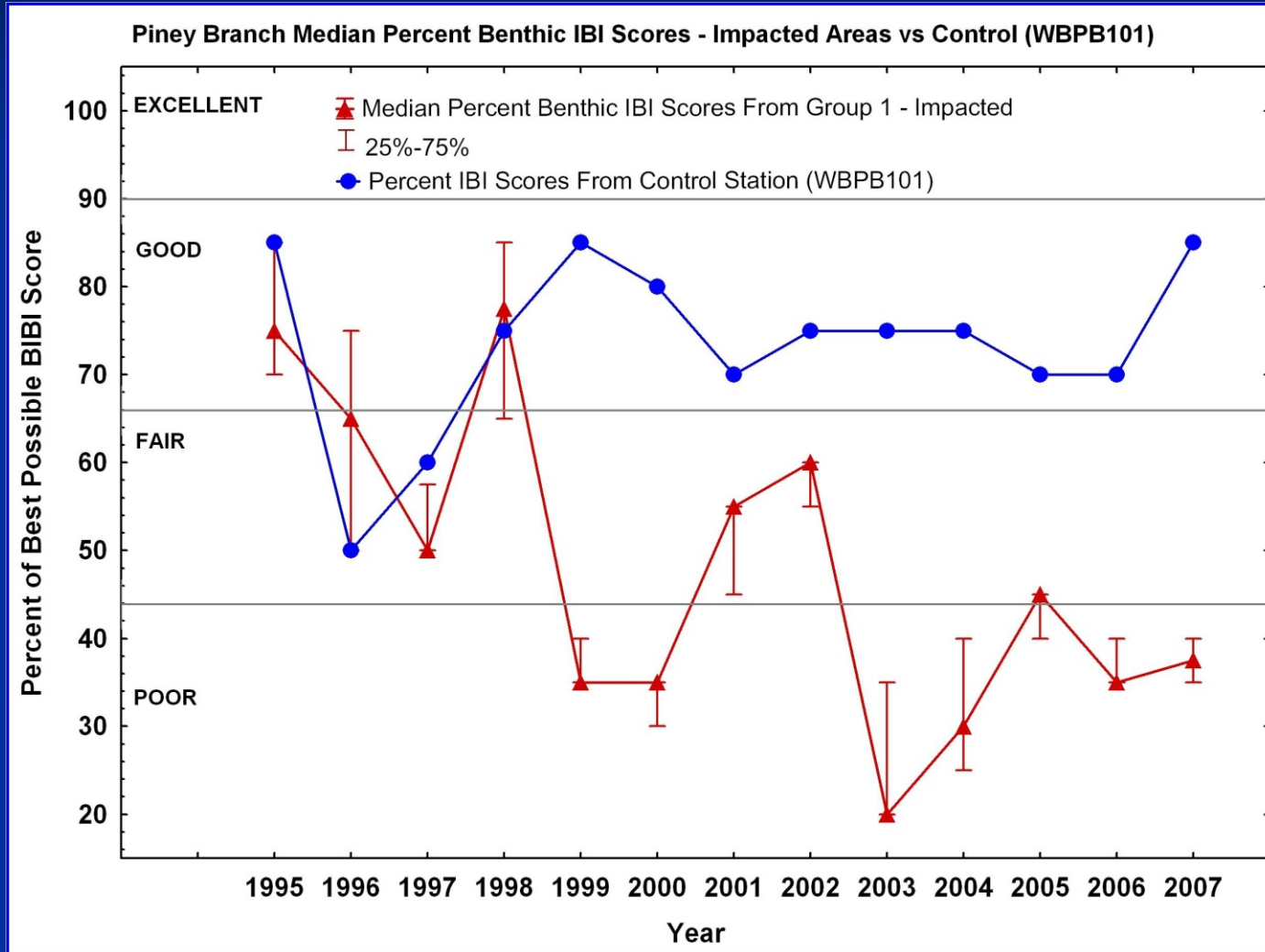


IBI scores of developed watersheds statistically different from undeveloped watersheds in Clarksburg

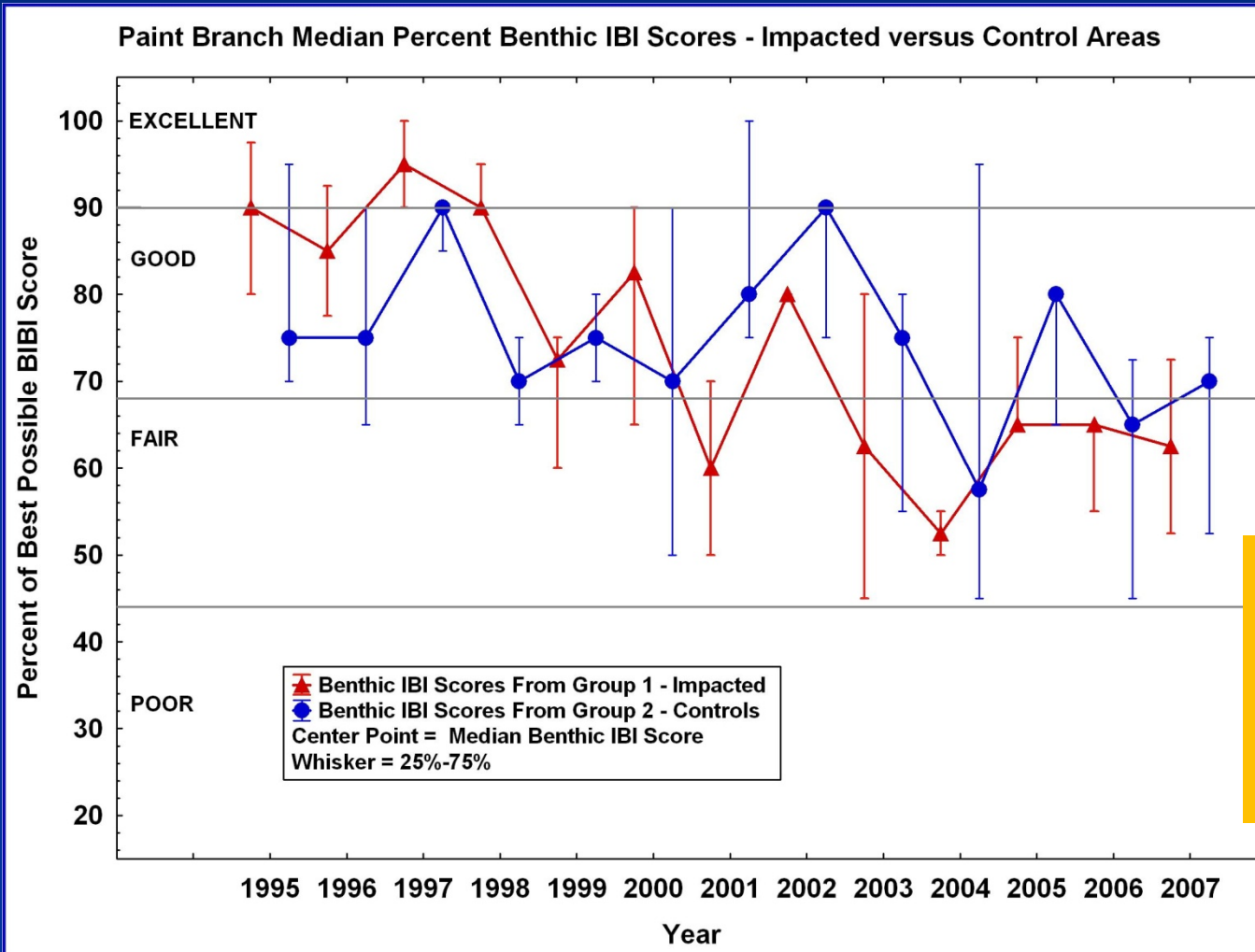


Statistical range
--for each score--
- indicated by
vertical bars,
show significant
difference in IBI
scores

IBI scores of developed watersheds statistically different from undeveloped watersheds in Piney Branch



IBI scores of developed watersheds not statistically different from undeveloped watersheds in Paint Branch

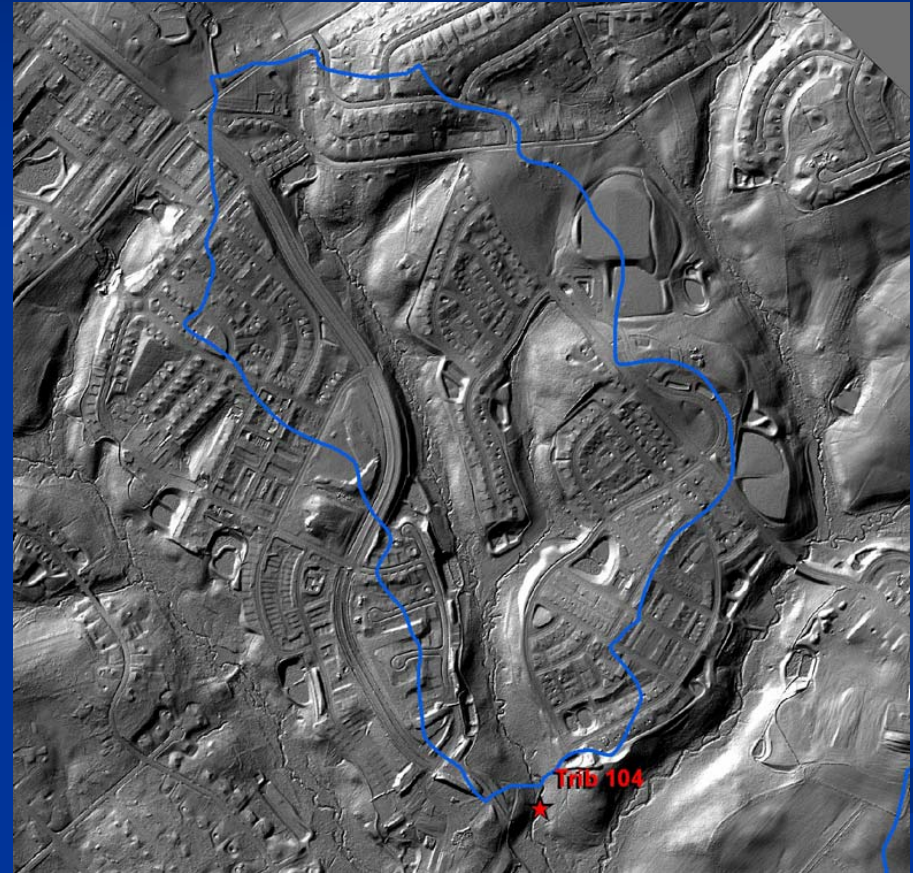
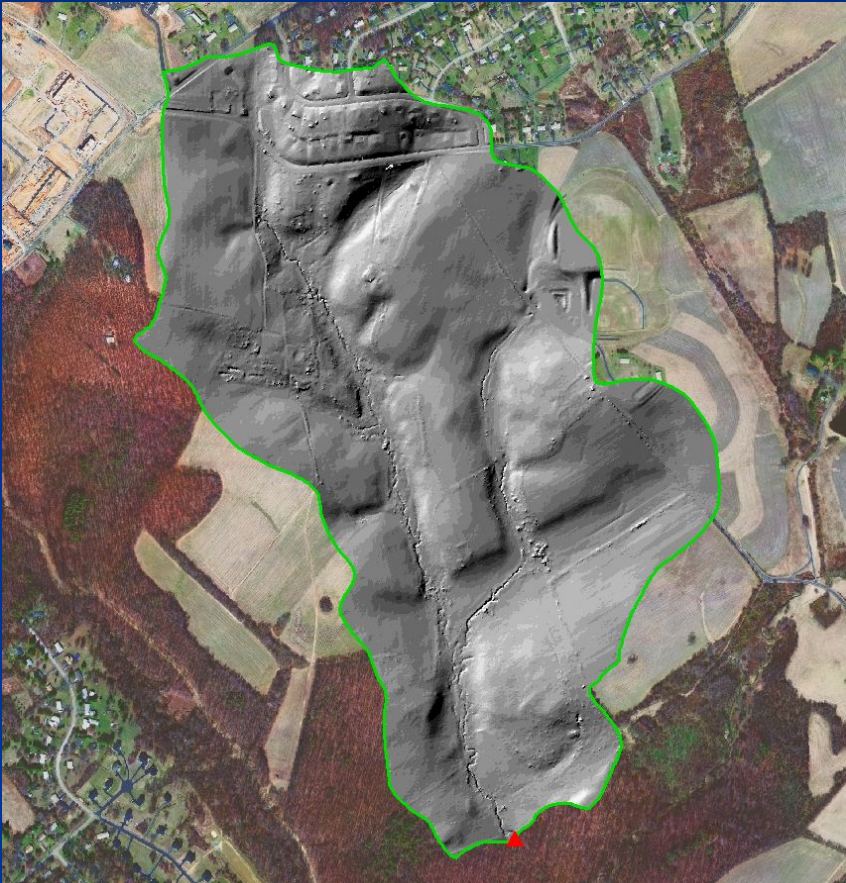


Statistical range --for each score-- indicated by vertical bars, shows **NO** significant difference in IBI scores

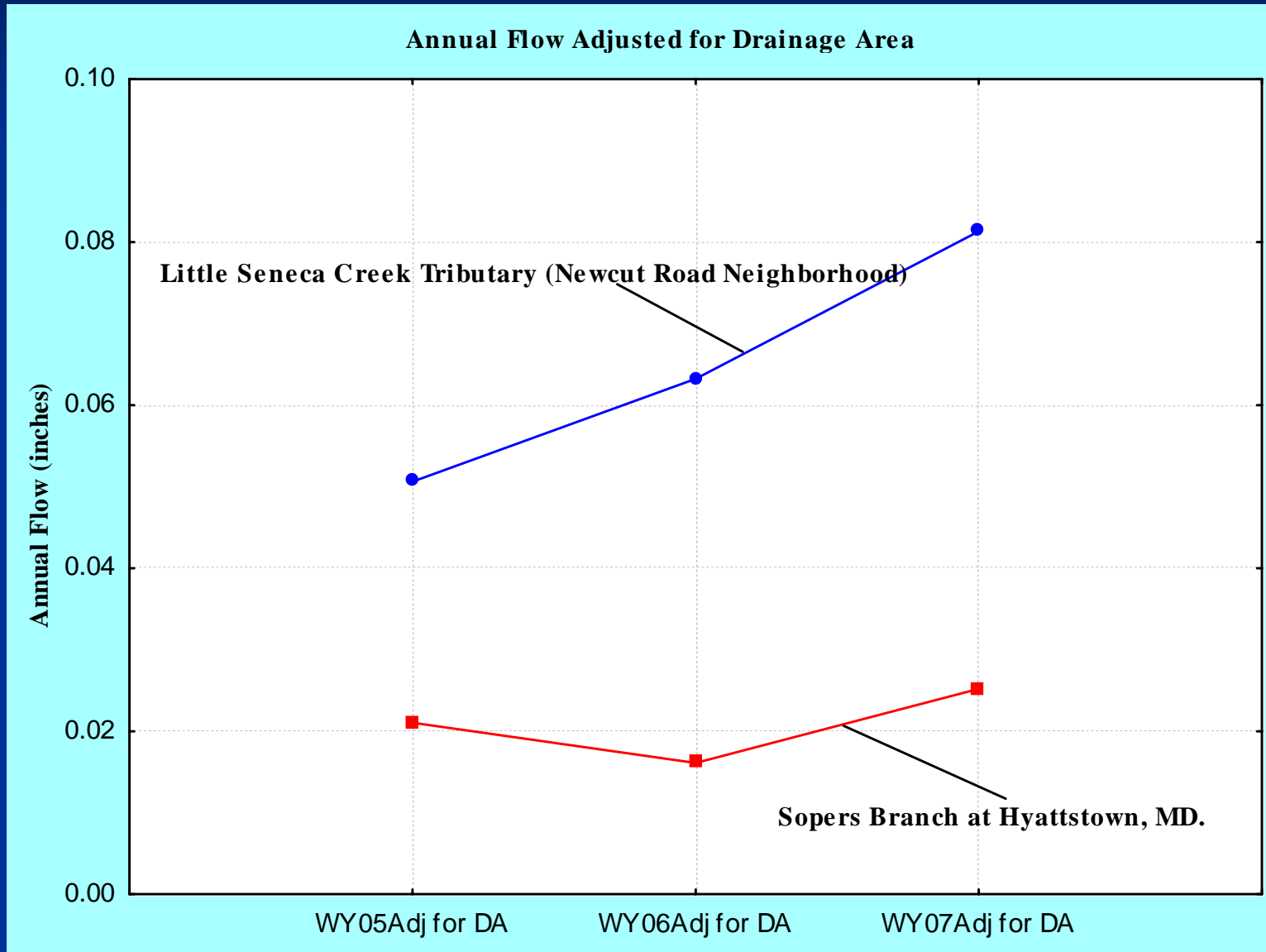
Paint Branch:

- Limited active construction sites
- 8 % imperviousness cap

Minimize Cut and Fill

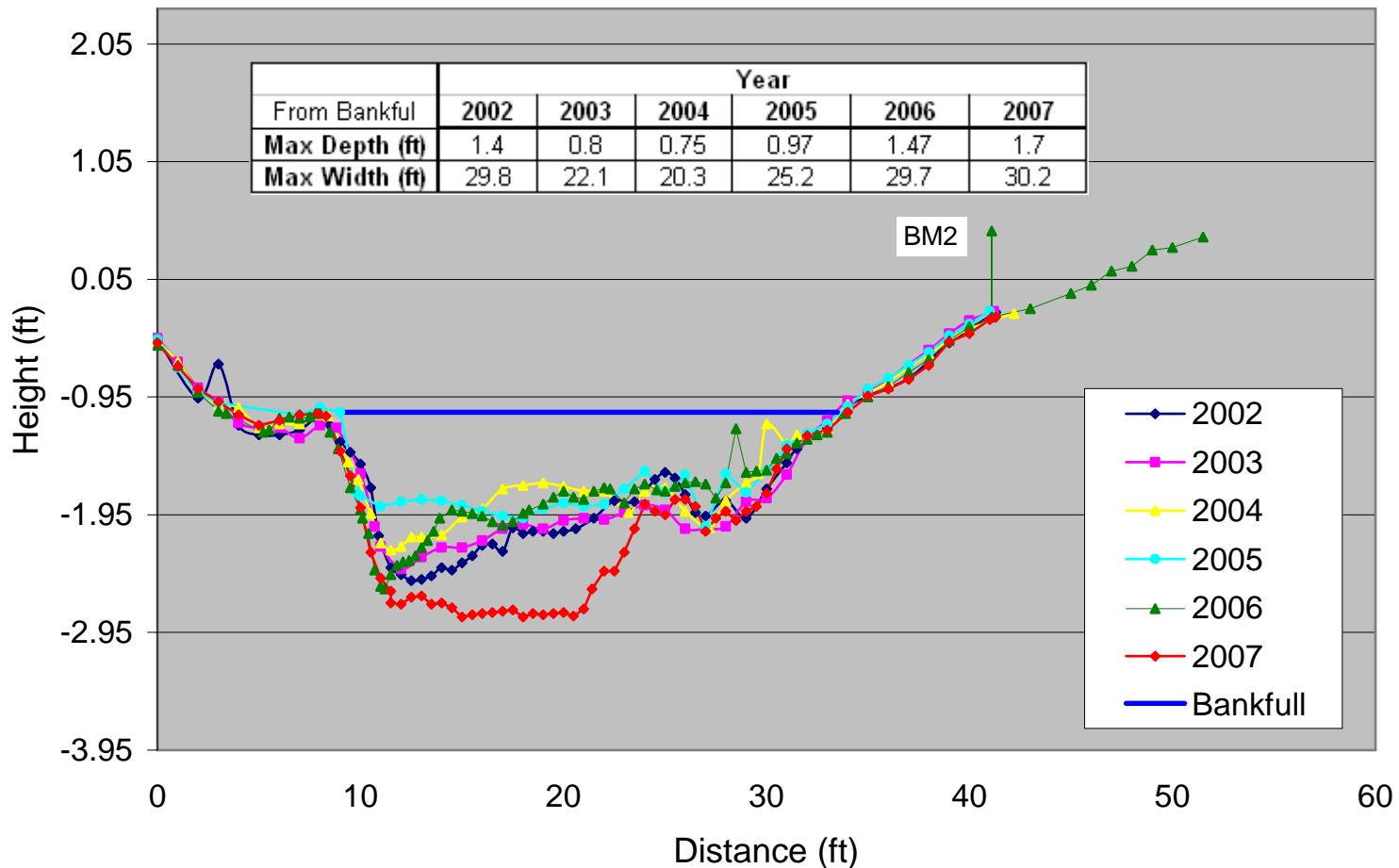


Maintain Hydrology



Minimize Channel Disturbance

Little Seneca 104 Tributary - Newcut Road Neighborhood
Test Location (Area 4, cross section 1)



For Consideration

- The development process permanently changes the character of the landscape. These changes are cumulative
- No Imperviousness threshold
- BMPs are performing as expected.
- BMP efficiency is not correlating to the health of the stream based on its biological health.
- Data, at this point in the development process, can't fully evaluate if the watershed will recover from the effects documented during construction.

Questions?

